

Unit 5: Factor Markets
AP Microeconomics

7 Class Meetings
Rev. June 2019

Essential Questions

- How do the factors of production (labor, land, capital, and entrepreneurship) impact one another?
- How does a firm allocate expenditures on factors of production to maximize profits?

Enduring Understanding with Unit Goals

EU 1: The services of labor, capital, and land are traded in factor markets.

- Explain the four factors of production; labor, capital, land, and entrepreneurship.

EU 2: Labor markets are both competitive and monopolistic.

- Compare competitive and monopolistic labor markets.
- Graph both types of labor markets and analyze to infer the labor demand and supply based on productivity and wages.

EU 3: Capital and land markets operate differently than labor markets.

- Explain equilibrium in land and capital markets.

Standards

College Career and Civic Life - C3 Framework for Social Studies State Standards

- **D2.Eco.1.9-12.** Analyze how incentives influence choices that may result in policies with a range of costs and benefits for different groups.
- **D2.Eco.2.9-12.** Use marginal benefits and marginal costs to construct an argument for or against an approach or solution to an economic issue.
- **D3.4.9-12.** Refine claims and counterclaims attending to precision, significance, and knowledge conveyed through the claim while pointing out the strengths and limitations of both.
- **D4.2.9-12.** Construct explanations using sound reasoning, correct sequence (linear or non-linear), examples, and details with significant and pertinent information and data, while acknowledging the strengths and weaknesses of the explanation given its purpose (e.g., cause and effect, chronological, procedural, technical)

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- **D4.6.9-12.** Use disciplinary and interdisciplinary lenses to understand the characteristics and causes of local, regional, and global problems; instances of such problems in multiple contexts; and challenges and opportunities faced by those trying to address these problems over time and place.

Common Core State Standards

- **CCSS.ELA-LITERACY.RH.11-12.2** Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.
- **CCSS.ELA-LITERACY.RH.11-12.7** Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.
- **CCSS.ELA-LITERACY.WHST.11-12.1.A** Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence..
- **CCSS.ELA-LITERACY.WHST.11-12.1.D** Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- **CCSS.ELA-LITERACY.WHST.11-12.1.E** Provide a concluding statement or section that follows from or supports the argument presented.
- **CCSS.ELA-LITERACY.WHST.11-12.2.B** Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
- **CCSS.ELA-LITERACY.WHST.11-12.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- **CCSS.ELA-LITERACY.WHST.11-12.9** Draw evidence from informational texts to support analysis, reflection, and research.
- **CCSS.ELA-LITERACY.WHST.11-12.10** Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

MSMHS 21st Century Learning Expectations

Competency 1. Read and write effectively for a variety of purposes

Competency 2. Speak effectively with a variety of audiences in an accountable manner

Competency 3. Make decision and solve problems independently and collaboratively

Competency 5. Contribute to a positive learning environment with respect and responsibility

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Unit Content Overview

- Factor markets
- Derived demand
- Value of marginal product
- Labor market
- Labor union
- Capital market
- Land Markets
- Market income
- Money income
- Economic mobility
- Human capital
- Discrimination effects
- Income redistribution
- Subsidy
- Negative income tax

- **Interdisciplinary Connections**
- Marine Studies I & II - labor in the fishing industry
- English III- changes in society can lead to changes to labor
- AP/ECE English Language and Composition- changes in American society can lead to changes in labor
- Aquaculture and Resource Management- factor markets of the fishing industry impact at the local, national, and international
- Aquatic Husbandry- connections to labor available in the MSMHS Aquaculture lab in comparison to other firms
- Algebra I- Solving equations and graphing
- Algebra II- Interpreting data, solving equations
- Topics in Mathematics: Business and Personal Finance- applying economic models to real life situations

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Daily Learning Objectives with TWPS Activities

Students will be able to...

- Identify the four factors of production; labor, capital, land, and entrepreneurship and their scarcity.
 - *Captain Dave is running celebrity yacht tours in Mystic. List all their factors of production by category.*
- Describe how the value of marginal product determines the demand for a factor of production
 - *Complete a circular flow diagram to identify the factors of production in The Office clip.*
- Examine and compare competitive and monoponistic labor markets to explain the impact of productivity changes, determinants of wage rates, and influence of labor unions & imposed minimum wage within the market
 - *As an employee would you prefer contributing labor to a perfectly competitive or monoponistic labor market.*
- Display through a graph and explain aspects of both a competitive labor market and a monoponistic labor market
 - *Complete a circular flow diagram to identify the factors of production in The Office clip.*
- Explain how capital and land rental rates and natural resource prices are determined
 - *Explore Zillow and look at apartment rentals in Downton Mystic, New London, and East Lyme. What reasons may be behind the price differences?*
- Display through a graph and explain a competitive labor market and a monoponistic labor market
 - *Analyze a information on 3 different firms and draw the appropriate graph, explain what made you believe the described firm was either competitive or monoponistic.*

Instructional Strategies/Differentiated Instruction

- **HLP:** Accountable Talk
- **HLP:** Effective Feedback
- **HLP:** Writing to Learn (TWPS)
- Homework: reading and practice problems

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- Lecture with notes
- Close reading with annotations
- Accountable Talk discussions
- Graphic organizers
- Self-assessments
- Strategic grouping
- Rephrasing information for students
- Student choice
- Learning through competitive games
- Personal connections
- Problem sets with practice AP test questions'
- Graphing practice
- Hands on simulations of concepts
 - Marginal Analysis: How much labor is too much?- Experiment to see when labor becomes inefficient & determining how to maximize profit by hiring most productive # of workers.
 - Marginal Analysis/ Perfectly competitive vs. monoponistic labor market- Down on the Farm: Students determine the number of workers a farm should hire to maximize profits in perfectly competitive market

Assessments

FORMATIVE ASSESSMENTS:

- Daily Written Reflections/ Prompts
- Group Discussion
- Problem Sets: Factor Markets
- Graphing Assignment (perfect competition & monoponistic labor markets showing shifts in demand/ supply.)
- AP test questions
- Unit Task: Down on the Farm (EU 1, 2, 3) – Reflection & Data explanation
 - MSMHS Rubric 4: Lab Report

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SUMMATIVE ASSESSMENTS:

- Quiz (EU 1 & 2)
- Unit Test

Unit Task

Unit Task Name: Down on the Farm- Labor Market Discovery

Description: Using knowledge from EU 1, 2, & 3, students will explore how both monopolistic and perfectly competitive firms determine the profit maximizing amount of labor needed in the “Down on the Farm Simulation”. Students must discover; “How do firms and businesses determine how much capital to hire?” In groups students will work to produce corn for a farm in a perfectly competitive market. Students will simulate the production of corn by having a team member write the word CORN on the board. Students will then tally the “bushels” produced (marginal product) and also calculate the costs and revenue of production (including costs of land and capital) In each time trial and additional worker will be added and students will repeat calculations. They will then use the data to infer, using marginal analysis, how much labor the farm should hire in different scenarios. Students will produce a lab report of their finding. Then, students will reflect their understanding of the concepts though scenarios including a change in the wage rate, a unionized work force, a change in rental rate of land and/or capital, and if the farm is actually a monopolistic firm. Students will include relevant graphs to support their conclusions.

Evaluation: MSMHS Rubric 4: Lab Report

Unit Resources

- ACDC Economics: Youtube
- Foundations of Economics, Bade and Parkin: Excerpts & practice problems from chapters 19, 20.1
- Released AP Microeconomics tests
- Laptops
- “Down on the Farm: Factor Markets Simulation”- frbatlanta.org
- “Walmart Friend or Foe?” –*Economics by Example* David A Anderson
- “What is the Value of Human Life?” –*Economics by Example* David A Anderson

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